

Information Services in Academic Libraries

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INFORMATION SERVICES IN ACADEMIC LIBRARIES

by

M. B. LINE

Academic libraries, like all other libraries, exist as media of communication between knowledge and people. In so far as they further communication, they are fulfilling their function; in so far as they do not, they are failing. Until recent years, libraries have been thought to fulfil this function by collecting books and providing catalogues. If the library was (as most British academic libraries are) open-access, readers could get their information either by using the catalogues, or the shelves, or both; if it was closed-access, they had to use the catalogues to find what the library had on a given subject, or whether it had a given book. They might also use published bibliographies. Their searching was more or less systematic and effective, according to their level and subject; an experienced researcher in history, for example, could be expected to have a great deal of bibliographical knowledge, and to exploit the system (of his own and other libraries) thoroughly. The most libraries did to help was to issue a printed handbook explaining the basic elements of the system and to station a member of the staff (usually fairly junior) at a strategic point, where elementary questions could be put. Between the wars several librarians (and others) suggested that there was a need for something more, but the need was evidently not urgent enough, or library staff were insufficient in numbers, for any real action to result (for an excellent historical review, see Tidmarsh's paper) (1).

A. Since the war, however, there have been major changes in the academic world in the U.K. The number of undergraduates, research students and staff has grown enormously, by a factor of four. The volume of literature has also grown enormously, so that the chance of knowing one's way around the literature on one's subject is greatly reduced: instead of the small country town which the individual knows intimately, he is confronted with a vast city. With this growth of literature, libraries have become much larger, but have also become more and more dependent on the resources of other libraries. Also with the growth of literature has come a parallel growth of bibliographies, indexing and abstracting journals and, much more recently, computer-based retrieval services. Most of the growth - both in the number of consumers and in literature - has been in science and technology, where the bibliographical knowledge of users has probably always been at a rather lower level than in the humanities.

How have libraries responded to these tremendous changes? In the late 1940s, two statements were made of a really positive and ambitious kind, by the Royal Society Scientific Information Conference in 1948 (2) and the University and Research Section of the Library Association in 1949 (3). As usual, action was rather slow

to follow recommendations. The printed handbooks of libraries have changed somewhat in content and emphasis, and the member of staff sited at a strategic point has advanced in seniority (in status rather than age). New students are usually given some information about the library on arrival, by a short tour, a lecture, or perhaps a film, slide-tape, or videotape. Few libraries do not carry out some activities of this kind. However, this could hardly be called 'educating the user'.

Since 1960, many libraries have gone further than this, in giving classes to undergraduates beyond the beginner's level, in small groups according to subject. (Several articles may be cited here, among them those by Carey (4) and Mackenzie (5)). These have attempted to introduce them to the use of the library catalogues, both for locating specific references and for subject searching; to some of the main bibliographies and reference books in their subject; and to the classification scheme in use. These classes have varied a great deal. In some libraries, undergraduates in certain subjects have had a series of seminars, in others, only one has been given. Again, the period of the undergraduate course at which these seminars are held may vary from the first term to much later, when work on a special project may be given. Within a university, there may be great variations; at Bath University, for example, undergraduates in Pharmacy have two or three hours' instruction in each of their three years, while those in Physics have only one hour in all their four years (this is not a matter of policy, but of practicability - it is hoped to extend the seminars for all Schools to the level of those in Pharmacy).

Some years ago, at Southampton University, one of the first universities where these courses were developed beyond an elementary level, I attempted to evaluate the effectiveness of library seminars (6, 7). The measures used were crude, and several new factors entered into the situation which made the results difficult to interpret; but certainly they gave no ground for supposing the seminars to be particularly effective. The only differences that were observed were an increase in the use of library catalogues as a first resort; a decline in difficulty with the layout of the library; an improvement in students' assessment of staff helpfulness; and great improvements in the attitudes of social science students. These last two require some comment. Between the first and second surveys, a Reader Service had been set up to provide a permanently available service to library users. I was the Sub-Librarian in charge of this service; I also took all the social science seminars. I noted that I was, as readers' servant, used more by social scientists than others, and this was presumably because these students had been introduced to me personally, knew the sort of help I could give, and knew I was there to give it. Many of the questions I was asked had already been answered in the seminars. It appeared then that the effect of the seminars had been to break the ice between library staff and users rather than do much in the way of direct education: they served mainly as a necessary prelude to a continuing service, but it was the continuing service that helped them rather than the seminar. The members of library staff who took seminars in other subjects were not normally visible to students, and the initial instruction had therefore only a small effect in these subjects.

A further major step in the process of educating users has been the introduction of courses for research students in the use of scientific literature. The inspiration, and the model, for these came from the National Lending Library (8). These seminars cover the use of indexes, abstracts, and review journals, reference tools, techniques of searching, and sometimes ways of making and keeping personal index files. I hope I may be forgiven for mentioning the experience of Southampton University Library again; I do so because it was one of the first to put on courses for research students, and because one can speak with much more authority from

first-hand experience. Again, I personally gave much of the instruction, and was regularly available to users afterwards. Again it struck me how many individuals came to me a week or two after the seminars, asking me elementary questions which had been fully covered by the seminars. (This may of course be a reflection on the quality of my instruction in the seminars). The chief value of the seminars seemed to be in giving recipients a general awareness of the information problem and ways of tackling it, and in indicating to them the sort of help the library staff could give. Certainly during my three years with Reader Service at Southampton University, the demands on the service grew with the confidence of users that it could help them; and among the information problems dealt with were some that could not have been covered by any amount of seminars.

One other fact should be recorded from my own experience of giving instruction to users. At Southampton, and at Newcastle University, where I worked subsequently, it was noticeable how the most favourable reactions to seminars came from the more experienced researchers - research students in their second or third years, and teaching staff who attended from curiosity. Many of these remarked how very useful they had found the seminars; how little they knew before about sources of information and methods of searching; and how they wished they had had such instruction at an earlier stage. By contrast, research students at the beginning of their research did not always appreciate the relevance of the instruction. I draw attention to this, because it seems to me one of the most crucial difficulties in user instruction. If it is done at a point in time before the user needs it, he does not see its relevance, and consequently is less likely to take it in. If it is done later, when the researcher is well under way, he may already have developed faulty methods of searching, or completed his search - in any case, he is unlikely to be highly motivated to attend a seminar unless he has run into real information difficulties. To catch the researcher at the ideal stage, when he has chosen his subject, is becoming aware of the difficulties of searching for information, but has not yet done much work on it, is extremely difficult; not the least of the difficulties being that since research students all tend to start at the same time of year, they all tend to reach the critical stage at the same time, and even the best staffed library finds difficulty in coping with a peak demand of this kind.

There are other difficulties associated with user instruction. One of the main problems is getting the user to the instruction at all. The National Lending Library is at a great advantage here: once a group of scientists is deposited at Boston Spa, there is little they can do there except be instructed (one unexpected benefit of locating the NLL in the wilds of Yorkshire). Moreover, those who venture there at all are a highly self-selected sample. By contrast, inducing researchers in a university to give up one or two precious days to hear about the use of scientific literature is far more difficult. Even when they come for the first day, they find it hard to believe there is anything more to learn on a further day. So while it is difficult to concentrate detailed instruction in a day or two, it is even harder to keep users there for a day or two to receive it.

Yet another problem concerns the nature of information use. Seminars are best suited to instructing users in literature searching. However, while research students are traditionally supposed to start work with a full literature search, this is, I suspect, a highly unusual way of proceeding. It is, for one thing, difficult to assess the relevance of references at such an early stage; and there is a serious danger of mental indigestion if a full literature search is indeed successfully conducted. Rather, searching is a continuous process, linked inseparably with the process of research.

I would argue strongly, then, that the usual methods of educating users, by lectures, seminars or courses, simply do not result in educated users, if by that is meant individuals who are capable of dealing with their information problems with complete confidence. Numerous studies (9) have shown that few users reach this level of sophistication. If they do, it is by continuous practice; and whether they indulge in continuous practice depends more on their motivation than on their training, which at best can only put them on the right lines. It is one thing to point out to an agricultural research student that he needs to use at least six indexing and abstracting journals to obtain a reasonable coverage of relevant literature; unless he is highly motivated and conscientious, he will still rely on two or three. And when he comes to a new field of interest, the general instruction he has received will be of little value.

The growth of computer-based retrieval systems has added a new dimension to the problems of information use. If instructing readers in the use of indexing and abstracting services is difficult, educating them in the use of computer-based services is much more so. In some disciplines it is now possible to choose between several services, each with different methods of profile construction, with different subject coverage, and with different advantages and disadvantages. Moreover, the information scene is changing so rapidly that any techniques taught today may not be very relevant in five years' time.

I would not wish to be misunderstood here. I am not opposed to user education, even in its conventional forms. I believe it is useful for breaking the ice between librarians and users, for pointing out the range and nature of reference tools, and for indicating general techniques of literature searching. Even these functions, however, are much better fulfilled on an individual basis. At the undergraduate level, the sheer numbers of students make individual instruction impossible. However, does one have to think in terms of formal instruction of any kind? A continuing information service seems far better fitted to meeting the information requirements of users; and during this process they are likely to become better able to help themselves.

I have stated elsewhere (10) the case for developing personalised information services in academic libraries. In brief, I believe that limitations on the time of users, their strong preference for informal and personal channels of communication, the volume of potentially relevant information and the complexity of the information system, and the individuality of information needs, make such services an essential part of any library service, unless one thinks of libraries in the old sense of bookstores with minimal service. I believe also that the principle of self-service acts as a constraint on the development of information systems; I doubt very much if a system can be highly efficient and sophisticated and directly usable by ordinary researchers. An expert human intermediary between the system and the user gives the user a service better than he could give himself, unless he is exceptionally skilled in information handling, and saves time by doing it much faster than the user could do it himself; such intermediaries, if they became a recognised part of every library service, would also make it possible to develop information systems of a much higher degree of sophistication. (For a contrary view, see Dr. Urquhart's paper on the desirability of developing user independence) (11). I would emphasise that the aim of such a service would not be to relieve the researcher of all searching activity. At the very least, he will still want to browse and scan current journals, to be exposed to a wider range of knowledge than any ordinary SDI service could give him. His routine reference needs (for example, the structure of a chemical compound) will be met as now by his consulting appropriate reference books; only when his need is outside his own familiar field will he call in the information officer. If he knows personally an expert who can give him over the telephone or by letter the precise information he wants, he will still contact him direct. Many

literature searches may have to be carried out, initially at least, by him and the information officer together; and during this process the user will gain more familiarity with the system, so that in future he will be able to exploit it more himself. The aim should be not to make him either fully independent or slavishly dependent, but to establish a balance whereby both he and the information officer carry out the activities for which they are best fitted. It is easy to make this sound more complicated than it is; in practice, the ready availability of an information officer on the spot would ensure that a reasonable division of duties was quickly reached. In any case, it would be wrong to attempt to lay down firm procedures for what should be a highly flexible and individual process.

The exact kind of information service which should be offered remains to be established. Several different patterns are emerging at present in British academic libraries. Southampton University Library appointed three or four years ago a scientific information officer with the main functions of conducting courses in scientific information use and promoting awareness and use of information services, both conventional and computer-based. Obviously one person cannot give more than a general and superficial service to all the scientists in a university, and 'information adviser' might be a more appropriate term than 'information officer'. This pattern is being followed by OSTI, which has placed scientific information officers in six other university libraries for an experimental period of three years.

The City University has an Information Section, to which users can come for help and assistance of an advanced kind (12). The University of Surrey has three senior members of staff dedicated to this sort of service; much of their work has been concerned with retrospective searches, some of which have resulted in excellent bibliographies.

The fullest service conceivable would be one that approximated to the information service given to industrial and government research establishments. This would include SDI, retrospective searching, and possibly translating, and would aim to serve users on a personal, day-to-day basis. It obviously makes much heavier demands on staffing than the other types of information service mentioned, both in numbers and in expertise. Ideally, there should be one information officer to every 20 or 30 researchers; he should (again ideally) be qualified in the subject area; and he must have appropriate expertise and experience in information handling, as well as having the right type of personality (rather more extraverted than some traditional librarians). Above all, he must have an ideal of positive service to users (rather than the rather passive service offered by many libraries). (Incidentally, this idea was put forward as long ago as 1939) (13).

I do not believe it is impossible to offer such a service; on the contrary, I believe it is essential if libraries are to give a service geared to today's rather than yesterday's needs. I also believe that libraries are only justified in employing high level staff, on a par with teaching staff, if they employ them on high-level activities, and among these I do not include such work as periodical accessioning or routine cataloguing. I am willing to be proved wrong in practice here: I shall soon find out, as I propose that when my own library moves into its new quarters late this year, nearly all senior staff should turn themselves into information officers, each initially serving two of the University's Schools. This will not be a sudden change, as several of them have already begun to give such a service; for example, one of them has been responsible for profile construction for the computer-based services in chemistry, and several have carried out retrospective searches, as well as giving a rather fuller reference service than is customary in academic libraries.

However, the fullest experience at Bath University to date has been with a full-time information officer in the social sciences, who has been working with us since January 1969 on an OSTI grant; the purpose of her appointment is partly to acquire information concerning the day-to-day information needs and habits of social scientists, partly to test the concept of an information officer giving a service in depth. The needs of social scientists appear to differ in numerous ways from those of scientists; their information problems are not yet so great, and the concept of information services is a novelty to them, so that it has probably taken longer for this type of service to be fully appreciated than would be the case with scientists. An attempt to evaluate the service will be made later this year; it can be said meanwhile that the service appears to be more than worthwhile (14).

It is possible that the types of service desirable for open-access and closed-access libraries differ, and that my views, written against an experience mainly of open-access libraries, are not wholly applicable to a closed-access system. It is however worth pointing out that the effect of the continuing exponential growth of published literature, combined with growing constraints on the purchasing power of libraries, are going to put a smaller and smaller proportion of the world's literature within the immediate reach of users; so that the differences between closed and open-access libraries will diminish, dependent as users will increasingly become on material which is not to hand.

Developments in information services in academic libraries are too recent for the final ideal pattern to be clear yet. We can expect during the next few years some of the uncertainties to be resolved at the same time as fresh developments in the supply of, and demand for, information create new needs and problems. Indeed, it is partly because of the uncertainty of the future that library services must develop a flexibility and adaptability that have not been customary in the past; and as human beings are about the most flexible and adaptable element in any system, this constitutes a good argument for the personalised service.

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DISCUSSION

A.J. EVANS: Does Mr. Line think that the information librarian should act as an "information adviser" to postgraduates, rather than give active help in their bibliographical searching?

M.B. LINE: Postgraduate students present problems, as searching is usually considered part of their research. They should perhaps receive direction on information matters as part of their education, rather than a full information service as is provided in industry. However this might have to change if increasingly long and complex searches are required.

E. POWER: When Mr. Line states that the instruction given for students does not evoke enthusiastic response could this be a reflection on the librarian's teaching abilities? Is this not implied in his statement that many library staff members are reluctant to undertake this type of work? Mr. Line also states that the content of the instruction is boring to the librarian/lecturer and that this boredom is transferred subconsciously to the students. Could this be due to poor organisation on the part of the librarian who has not sought the co-operation of the teaching staff in making the instruction relevant to their subject lectures as well as to the holdings of the library?

M.B. LINE: There is general agreement that many librarians do not study the most successful methods of conveying information. Familiarity with the lecture material should not be the cause of the lecturer communicating a sense of boredom to his students, since this factor operates in all teaching. Co-operation with the university teaching staff can be achieved by sharing the load or by providing backing. However, it is still true that instruction in library and information use is peculiarly difficult to make interesting.

H.A. CHESSHIRE: May I suggest that the best way of ensuring a high degree of relevance in courses of library instruction is by consultation with the academic staff. It is also extremely important to impress the value of the lectures upon faculty.

M.B. LINE: Without preempting further discussion, I would agree that co-operation is very necessary. I would also stress again that lectures and seminars are not the only methods of instruction, and probably not the best.

R.W.P. WYATT: Surely we must do more to assist librarians to make their instruction in bibliographical searching and library use more effective? The use of advanced educational methods could be helpful in reducing boredom.

M.B. LINE: I agree that training would help, and a lack of good text-books does not make matters easier. However I am not hopeful that the subject can really be made interesting.

B.J. ENRIGHT: A problem arises concerning the open-ended nature of information needs. The satisfaction of such needs can prove very expensive and university faculty and researchers may well come to expect the library to provide them with information services without contributing to the cost of such provision.

M.B. LINE: The competing demands for university funds will make it difficult to secure adequate allocations for information services. It is possible that the future will see a reduction (in real terms) rather than expansion of funds, relative to the total university population. It will, therefore, be increasingly important for librarians to know where information may be found outside their own libraries and localities, and that any increased emphasis should be on information services relative to stock.

J. LUBANS: Would Mr. Line enlarge on the desirable qualifications for staff working on information desks? I have personal knowledge of one library in which only 15% of the queries could be called substantial and in view of this figure would like to have Mr. Line's views on the use of professional and unqualified staff.

M.B. LINE: The information desk can certainly act as a filter for the majority of inquiries. It stands or falls by the personality and competence of the staff, who must have a good bibliographical knowledge. Perhaps a librarian's education should include something on the technique of interviewing. Some work has been done by Robert S. Taylor* on question-negotiation but it would be a good thing if this were carried further.

* R.S. Taylor, College and Research Libraries, 1968, Vol. 29, p178-94.

J. FLETCHER: The system of subject specialists in the University Library at Warwick University is similar to that recommended by Mr. Line. Senior staff are responsible for liaison between the academic departments and the library, for book selection, cataloguing and classifying the acquisitions in their subject area and for readers' services in that subject. Relationships with the teaching staff are excellent and it has been possible to maintain profiles of subject interests. Instruction courses for both undergraduate and postgraduate students are given by subject specialists, who thereby make themselves known and are always available to both groups of students. Specialised information services are provided in certain subject areas to meet local demands, and in economics and business studies we are examining the possibility of starting a personal SDI service for academic staff. In general, however, our staff spend less time in the departments than is advocated by Mr. Line.

M.B. LINE: My own concept is of a rather more personalised, and less library-based, service, than that in operation at Warwick. I think it is important that library staff should be available in the departments at specified times in the week, so that the teaching staff come to know them and find them readily accessible.

R.W.P. WYATT: Would Mr. Line please enlarge on what librarians are likely to be actually doing when they are working in the departments?

M.B. LINE: Part of the time will be spent talking to staff and students, either in the laboratories or common room. They also assist academic staff with their personal indexes and in the construction of user profiles.

B.J. ENRIGHT: May I ask Mr. Line to comment on the organisational problems which a large team of information officers might cause to the library. Evaluation of the competence of information officers presents a problem, and it is difficult to judge how well they do their jobs.

M.B. LINE: Evaluation is indeed a major problem. It will probably be partly built-in to the job, while feed-back from users can help in this respect. It is essential to have first-rate staff for this type of work who can inspire a new level of trust between the library and the academic staff. There have always been difficulties in staff control even in such a well-established field as cataloguing; the major difference is that information staff are much more exposed to the public. However, every effort should be made to see that resources are not wasted, and that these services are not only worth their money, but seen to be so.

J. FLETCHER: How can librarians change the image of their profession to attract people with the extrovert, "helpful to users" personalities needed for information work?

M.B. LINE: I feel that this type of person is already in the profession in small numbers, and it is noticeable that this new aspect of library work is arousing the interest of a different kind of entrant. The position will undoubtedly improve in time, new types of librarian creating a new image of librarianship, which will in turn attract more "new men" to the profession. Dr. Evans has said that he is very much encouraged to see the better attitudes of new entrants to library schools in connection with this aspect of librarianship.

J. LUBANS: Can Mr. Line say anything about meeting the information needs of social scientists?

M.B. LINE: Social scientists have only recently begun to realise the extent of their information problems, which are in many ways more acute than those of the scientists.

L.D. WILL: Do you consider that some of the feeling of boredom and irrelevance experienced by undergraduates attending library instruction is due to their academic courses being insufficiently library-orientated? Is it only by establishing an image of the library as an information source in the eyes of the academic staff that they can be persuaded to set more open-ended projects which stimulate student's information needs, or is there any more direct approach?

M.B. LINE: This is very much the problem of the chicken and the egg. The main approach seems to be the establishment of the library's image. Once the academic staff have confidence in the ability of the library to provide an information service they will set appropriate work for students.